CLAIMS

THE INVENTION CLAIMED IS:

1. A method for processing input entered by a user and providing at least one response in a system for autonomously processing the input, comprising the steps of:

providing rules,

receiving the input entered by the user, and

for each rule:

determining if the input is recognized, and

if the input is recognized, sending an appropriate response to the user,

wherein the step of determining if the input is recognized, includes the steps of:

attempting to match the input to at least one pattern,

if no match is found, not recognizing the input and continuing to the next rule, and

if a match is found, either:

recognizing the input and continuing to the step of sending the appropriate response, or

conditionally recognizing the input and executing at least one statement validator to determine if the input is appropriately matched by the rule, the statement validator including the steps of:

querying structured data to determine if a logic statement evaluates to true,

depending upon whether the statement evaluates to true or false, either:

recognizing the input and continuing to the step of sending the appropriate response,

repeating the step of querying the structured data for the next statement validator, if available, or

not recognizing the input and continuing to the next rule.

2. The method according to claim 1, wherein the statement validator further includes the steps of:

taking a relevant part of the input based on code of the rule,

querying the structured data using the relevant part to obtain a result,

evaluating a logic statement based on the result, where depending upon whether the statement evaluates to true or false, either:

recognizing the input and continuing to the step of sending the appropriate response,

repeating the step of querying the structured data for the next statement validator, if available, or

not recognizing the input and continuing to the next rule.

3. The method according to claim 1, wherein the statement validator further includes the steps of:

taking a relevant part of the input based on code of the rule,

querying the structured data using the relevant part to obtain a result,

evaluating a logic statement based on the result and the relevant part, where depending upon whether the statement evaluates to true or false, either:

recognizing the input and continuing to the step of sending the appropriate response,

repeating the step of querying the structured data for the next statement validator, if available, or

not recognizing the input and continuing to the next rule.

4. The method according to claim 1, wherein the statement validator further includes the steps of:

querying the structured data to obtain a result,

taking a relevant part of the input based on code of the rule,

evaluating a logic statement based on the result and the relevant part, where depending upon whether the statement evaluates to true or false, either:

recognizing the input and continuing to the step of sending the appropriate response,

repeating the step of querying the structured data for the next statement validator, if available, or

not recognizing the input and continuing to the next rule.

5. The method according to claim 1, wherein the statement validator further includes the steps of:

querying the structured data to obtain a result,

evaluating a logic statement based on the result, where depending upon whether the statement evaluates to true or false, either:

recognizing the input and continuing to the step of sending the appropriate response,

repeating the step of querying the structured data for the next statement validator, if available, or

not recognizing the input and continuing to the next rule.

6. The method according to claim 1, wherein the input includes questions, declarative statements, or other normal communication patterns.

7. The method according to claim 1, further comprising the step of preprocessing the input after the input is entered by the user.

8. The method according to claim 7, wherein the step of preprocessing the input includes the step of standardizing the input.

9. The method according to claim 8, wherein the step of standardizing the input is accomplished using one or more of a remove punctuation process, a spell check process, an expand contractions process, and a standardize case process.

10. The method according to claim 8, wherein the step of preprocessing the input also includes the step of extracting structure or meaning from the input.

11. The method according to claim 7, wherein the step of preprocessing the input includes the step of extracting structure or meaning from the input.

12. The method according to claim 11, wherein the step of extracting structure or meaning from the input is accomplished using one or more of a lexical analysis process or a semantic analysis process.

13. The method according to claim 1, wherein the step of sending the appropriate response includes the steps of:

extracting executable code from the appropriate response, and

running the executable code to embed dynamic information in the appropriate response.

14. The method according to claim 1, the method further includes the steps of, for any rule for which the input is recognized:

identifying logic within the rule, and

executing the logic.

15. The method according to claim 14, wherein the step of executing logic includes the step of choosing the appropriate response from a set of responses.

16. The method according to claim 15, wherein the step of choosing the appropriate response is achieved by randomly choosing from the set of responses.

17. The method according to claim 15, wherein the step of choosing the appropriate response is based upon a query of outside information.

18. The method according to claim 15, wherein the step of choosing the appropriate response is based upon a query of the structured data.

19. The method according to claim 14, wherein the step of executing logic includes the step of choosing the appropriate response from a set of responses based upon the step of executing at least one statement validator to determine if a logic statement in the statement validator evaluates to true.

20. A computer based system that processes input entered by a user and provides at least one response in a system for autonomously processing requests, comprising:

an engine configured to receive the input from the user;

a set of rules accessible by the engine;

a set of patterns;

at least one statement validator;

structured data accessible by the engine;

wherein upon receipt of the input from the user, the engine determines if the input is recognized by attempting to match the input to at least one pattern in the set of patterns, and

if the input matches at least one of the at least one pattern, either sending an appropriate response to the user, or validating the input using the at least one statement validator and the structured data and sending the appropriate response to the user.

21. The system according to claim 20, further including script storage housing the set of rules.

22. The system according to claim 20, wherein each rule includes an input recognizer and at least one response layer.

23. The system according to claim 22, wherein each rule further includes at least one logic layer.

24. The system according to claim 20, further including:

client software adapted to receive the input from the user; and

a connection interface in communication with the client software and the engine.

25. The system according to claim 24, wherein the connection interface includes the client software.

26. The system according to claim 20, further including a user interface in communication with the connection interface and including the client software.

27. The computer based apparatus according to claim 26, further including a network interconnecting the connection interface and the user interface.

28. The system according to claim 20, further including other data sources utilizable by the engine to identify a response.

29. A method for processing input entered by a user and providing at least one response in a system for autonomously processing the input, comprising the steps of:

providing rules,

receiving the input entered by the user, and

for each rule:

determining if the input is recognized, and

if the input is recognized, sending an appropriate response to the user,

wherein the step of determining if the input is recognized, includes the steps of:

executing at least one statement validator to determine if the input is appropriately matched by the rule, the statement validator including the steps of:

querying structured data to determine if a logic statement evaluates to true,

depending upon whether the statement evaluates to true or false, either:

recognizing the input and continuing to the step of sending the appropriate response,

repeating the step of querying the structured data for the next statement validator, if available,

not recognizing the input and continuing to the next rule, or

conditionally recognizing the input and attempting to match the input to at least one pattern, if a match is found, recognizing the input and continuing to the step of sending the appropriate response.

30. A method for processing input entered by a user and providing at least one response in a system for autonomously processing the input, comprising the steps of:

providing rules,

receiving the input entered by the user,

selecting at least one potential response, and

for each rule:

determining if the input is recognized, and

if the input is recognized, selecting an appropriate response from the at least one potential response and sending the appropriate response to the user,

wherein the step of determining if the input is recognized, includes the steps of:

attempting to match the input to at least one pattern,

if no match is found, not recognizing the input and continuing to the next rule, and

if a match is found, either:

recognizing the input and continuing to the step of sending the appropriate response, or

conditionally recognizing the input and executing at least one statement validator to determine if the input is appropriately matched by the rule, the statement validator including the steps of:

querying structured data to determine if a logic statement evaluates to true,

depending upon whether the statement evaluates to true or false, either:

recognizing the input and continuing to the step of sending the appropriate response,

repeating the step of querying the structured data for the next statement validator, if available, or

not recognizing the input and continuing to the next rule.

31. A method for processing input entered by a user and providing at least one response in a system for autonomously processing the input, comprising the steps of:

providing rules,

receiving the input entered by the user,

selecting at least one potential response, and

for each rule:

determining if the input is recognized, and

if the input is recognized, selecting an appropriate response from the at least one potential response and sending the appropriate response to the user,

wherein the step of determining if the input is recognized, includes the step of:

executing at least one statement validator to determine if the input is appropriately matched by the rule, the statement validator including the steps of:

querying structured data to determine if a logic statement evaluates to true,

depending upon whether the statement evaluates to true or false, either:

recognizing the input and continuing to the step of sending the appropriate response,

repeating the step of querying the structured data for the next statement validator, if available,

not recognizing the input and continuing to the next rule, or

conditionally recognizing the input and attempting to match the input to at least one pattern, if a match is found, recognizing the input and continuing to the step of sending the appropriate response.

32. A method for processing input entered by a user and providing at least one response in a system for autonomously processing the input, comprising the steps of:

providing rules,

receiving the input entered by the user, and

for each rule:

determining if the input is recognized, and

if the input is recognized, sending an appropriate response to the user,

wherein the step of determining if the input is recognized, includes the steps of:

executing at least one statement validator to determine if the input is appropriately matched by the rule, the statement validator including the steps of:

querying structured data to determine if a logic statement evaluates to true,

depending upon whether the statement evaluates to true or false, either:

conditionally recognizing the input,

repeating the step of querying the structured data for the next statement validator, if available, or

not recognizing the input and continuing to the next rule,

attempting to match the input to at least one pattern,

if no match is found, not recognizing the input and continuing to the next rule, and

if a match is found, conditionally recognizing the input,

if the input is conditionally recognized by the at least one statement validator and is conditionally recognized by the attempt to match the input to the at least one pattern, then recognizing the input and continuing to the step of sending the appropriate response.

33. The method according to claim 32, wherein the step of executing the at least one statement validator and the step of attempting to match the input to the at least one pattern occur contemporaneaously.

34. The method according to claim 32, wherein the step of executing the at least one statement validator occurs prior to the step of attempting to match the input to the at least one pattern.

35. The method according to claim 32, wherein the step of executing the at least one statement validator occurs after the step of attempting to match the input to the at least one pattern.